

JOINT MESSAGEFORM

SPACE BELOW RESERVED FOR COMMUNICATION CENTER

1960 AUG 19 02 00

PRIORITY	TYPE MSG (Check)	ACCOUNTING SYMBOL	ORIG. OR REFERS TO	CLASSIFICATION OF REFERENCE
<u>OPERATIONAL IMMEDIATE</u>	BOGE <input type="checkbox"/> MULT <input type="checkbox"/> SINGLE <input type="checkbox"/>			
INFO: <u>OPERATIONAL IMMEDIATE</u>				

FROM: CHIEF, AFMMD FIELD OFFICE, VAFB, CALIF

TO: HQ AFMMD, LOS ANGELES 45, CALIF

HQ 6594TH TEST WING (SATELLITE), SUNNYVALE, CALIF

LOCKHEED MISSILES & SPACE DIV, SUNNYVALE, CALIF

LOCKHEED MISSILES & SPACE DIV, VAFB, CALIF (COURIER)

DOUGLAS AIRCRAFT COMPANY, VAFB, CALIF (COURIER)

INFO: 1ST MISSILE DIVISION, VAFB, CALIF (COURIER)

AFMMD TECHNICAL EVALUATION STAFF, P.O. BOX 1567, VAFB, CALIF (COURIER)

SECRET/WDG-16-4/1-129

LOSA FOR WDZY; 6594TH TW FOR LT COL MATHISON; LMSD/SUNNYVALE FOR

DEPT 61-44 (L. F. MORGAN); LMSD/VAFB FOR DEPT 65-44 AND 61-70; DAG

FOR R. PURDY. INFO FOR 1MD FOR COMMAND POST; AFMMD TECH EVAL STAFF

FOR MR. FISCHER. SUBJECT: FLASH REPORT OF LAUNCHING OF DISCOVERER

XIV (NIGHT SHIFT-FRESTO) FROM VANDENBERG AFB.

1. VEHICLE CONFIGURATION:

1.1. SATELLITE VEHICLE, LOCKHEED MODEL 2205, SERIAL NO. 1D56

SEPARATION WEIGHT 8.643 LBS.

DATE 18 AUG 1960

TIME

MONTH YEAR

SYMBOL WDG-16-4

TYPED NAME AND TITLE (Signature if required) HAROLD M. POWERL, JR., MAJ, USAF

PHONE 6-6734 PAGE NO. 1 NO. OF PAGES 3

SECURITY CLASSIFICATION

SIGNATURE: Harold M. Powerl, Jr. for Maj HMP

WILLIAM F. HEISLER, LT COL, USAF Chief, Satellite Systems Division

302 COMBAT SUPP GP 80-1084 COPY

CLASSIFICATION CHANGED TO ~~SECRET~~ CONFIDENTIAL BY AUTHORITY OF ~~SECRET~~ 205-2 APR 1966

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CLASSIFIED AT 3 YEAR INTERVAL UNLESS INDICATED OTHERWISE EOP 1.0

WDG-16-4 Comback Cy

**JOINT MESSAGEFORM - CONFIRMATION SHEET**

FROM:

CHIEF, AFBMD FIELD OFFICE, VAFB, CALIF

- 1.2. FIRST STAGE, THOR DM-18, SERIAL NO. 237, MODIFIED TO UTILIZE A STRUCTURAL ADAPTER TO THE SATELLITE VEHICLE.
2. DATE AND TIME OF LAUNCH 18 AUGUST 1960 AT 1257:07:55 PDT INTO A POLAR ORBIT ON AN ORBIT INJECTION AZIMUTH OF APPROXIMATELY 172 DEGREES.
3. PRIMARY OBJECTIVES. SEE BASIC DTO, IMSD DOCUMENT NO. 445725 AND APPENDIX "F".
4. THE PRIMARY OBJECTIVE TO ATTAIN AN ORBIT WAS SATISFACTORILY ACHIEVED AS RECORDED BY ACQUISITION ON TRACKING AIDS AT KODIAK, ANNETTE AND VAFB ON THE FIRST PASS.
- 4.1. PRIMARY OBJECTIVE OF THE THOR BOOSTER TO CARRY THE DISCOVERER SATELLITE TO THE PLANNED SEPARATION ALTITUDE AND VELOCITY WAS DEMONSTRATED. MAIN ENGINE BURNING TIME WAS APPROXIMATELY 165.0 SECONDS WITH VERNIER CUT-OFF APPROXIMATELY 9.47 SECONDS LATER.
- 4.2. THE PRIMARY OBJECTIVE OF THE SATELLITE AIRFRAME TO WITHSTAND THE CONTROL SYSTEM PERTURBATIONS AND ENVIRONMENTAL CONDITIONS WAS SATISFACTORILY INDICATED THROUGH ORBIT INJECTION. SEPARATION OCCURRED APPROXIMATELY 7.84 SECONDS AFTER VERNIER ENGINE CUT-OFF.
- 4.3. THE PRIMARY OBJECTIVE OF THE AGENA PROPULSION SYSTEM TO PROVIDE THE ADDITIONAL TOTAL IMPULSE TO ATTAIN ORBIT WAS SATISFACTORILY DEMONSTRATED. SECOND STAGE IGNITION OCCURRED AFTER A COAST PERIOD OF APPROXIMATELY 95.5 SECONDS AFTER SEPARATION; AGENA ENGINE BURNING TIME OF 115.8 SECONDS WAS ACHIEVED THUS INDICATING PROPER PROPELLANT UTILIZATION. THE TOTAL IMPULSE DESIRED WAS OBTAINED AS EVIDENCED BY THE BURNOUT VELOCITY OF APPROXIMATELY 26,000 FT PER SECOND AS

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**JOINT MESSAGEFORM - CONTINUATION SHEET**

SECURITY CLASSIFICATION

FROM:

CHIEF, AFMMD FIELD OFFICE, VAFB, CALIF



DETERMINED FROM THE PLOT BOARD CHARTS.

4.4. THE AGENA APU SYSTEM SATISFACTORILY DEMONSTRATED ACCEPTABLE PERFORMANCE OF COMPONENTS AND ABILITY TO SUPPLY POWER REQUIREMENTS THROUGH THE FIRST PASS.

4.5. THE ABILITY OF THE AGENA GUIDANCE AND CONTROL SYSTEM TO DERIVE THE TIME TO INITIATE AND TERMINATE ORBITAL BOOST AT THE PROPER TIME WAS SATISFACTORY. AN INJECTION ANGLE OF APPROXIMATELY 0° WAS ACHIEVED. A VEHICLE ATTITUDE STABILIZATION PROBLEM WAS INDICATED ON PASS ONE BY ABNORMAL OUTPUT IN THE HORIZON SCANNER PITCH AND ROLL CHANNELS AND GREATER THAN NORMAL CONTROL GAS CONSUMPTION.

4.6. THE PRIMARY OBJECTIVE OF THE SATELLITE AIRBORNE AND GROUND TELEMETRY, TRACKING AND COMMAND SYSTEM WAS DEMONSTRATED SATISFACTORILY THROUGH ORBIT INJECTION.

5. ALL SECONDARY OBJECTIVES THROUGH THE FIRST PASS WERE ACHIEVED.

6. ALL TERTIARY OBJECTIVES WERE ACHIEVED THROUGH THE FIRST PASS.

7. THE FOLLOWING ADDITIONAL INFORMATION IS SUBMITTED:

(A) THE TLM-18 VAFB TRACKED FOR 456 SECONDS.

(B) THE INJECTION ALTITUDE WAS APPROXIMATELY 120 STATUTE MILES.

8. PAD DAMAGE WAS MINIMUM. PAD RECOVERY TIME OF APPROXIMATELY FIVE WORKING DAYS IS EXPECTED.

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